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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,405	04/24/2007	Tadahisa Tanaka	2006_0885A	4716

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WENDEROTH, LIND & PONACK, L.L.P.
1030 15th Street, N.W.,
Suite 400 East
Washington, DC 20005-1503

EXAMINER	
LIU, HENRY Y	

ART UNIT	PAPER NUMBER
3654	

MAIL DATE	DELIVERY MODE
01/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,405	TANAKA, TADAHISA	
	Examiner	Art Unit	
	HENRY LIU	3654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/28/2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3 and 4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *3* is/are allowed.

6)☒ Claim(s) *4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/07/2009, 10/28/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments with respect to claim 4 have been considered but are moot in view of the new ground(s) of rejection. Claim 3 is allowable.

The rejection to Claim 4 is set forth below.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over KATOGI (6,036,612) in view of KERN (5,871,286).

Regarding Claim 4, KATOGI teaches "A tension adjusting device (Fig. 2) for an engine accessory driving belt (7) , comprising: a tension pulley (5) configured to be brought into contact with the engine accessory driving belt (7); a pivotable pulley arm (1) supporting said tension pulley (5); a hydraulic auto-tensioner for applying a regulating force to said pulley arm (1), thereby pressing said tension pulley against the belt (7) (Col. 2 lines 15-60), said auto-tensioner having at one end thereof a coupling piece formed with a bushing insertion through hole (29) extending between two sides thereof; a tubular bushing (30) inserted in said bushing insertion through hole; a bolt (31) inserted through said bushing (30)

KATOGI does not teach "and brought into threaded engagement with said pulley arm and tightened to fix said bushing to said pulley arm, thereby pivotally coupling said one end of said hydraulic auto-tensioner to said pulley arm."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tensioning device in KATOGI such that the same hydraulic tensioner to engine block mounting structure is used to mount the hydraulic tensioner to the pivot arm (1), since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. The modification allows the hydraulic tensioner to be more easily removed from the pivot arm.

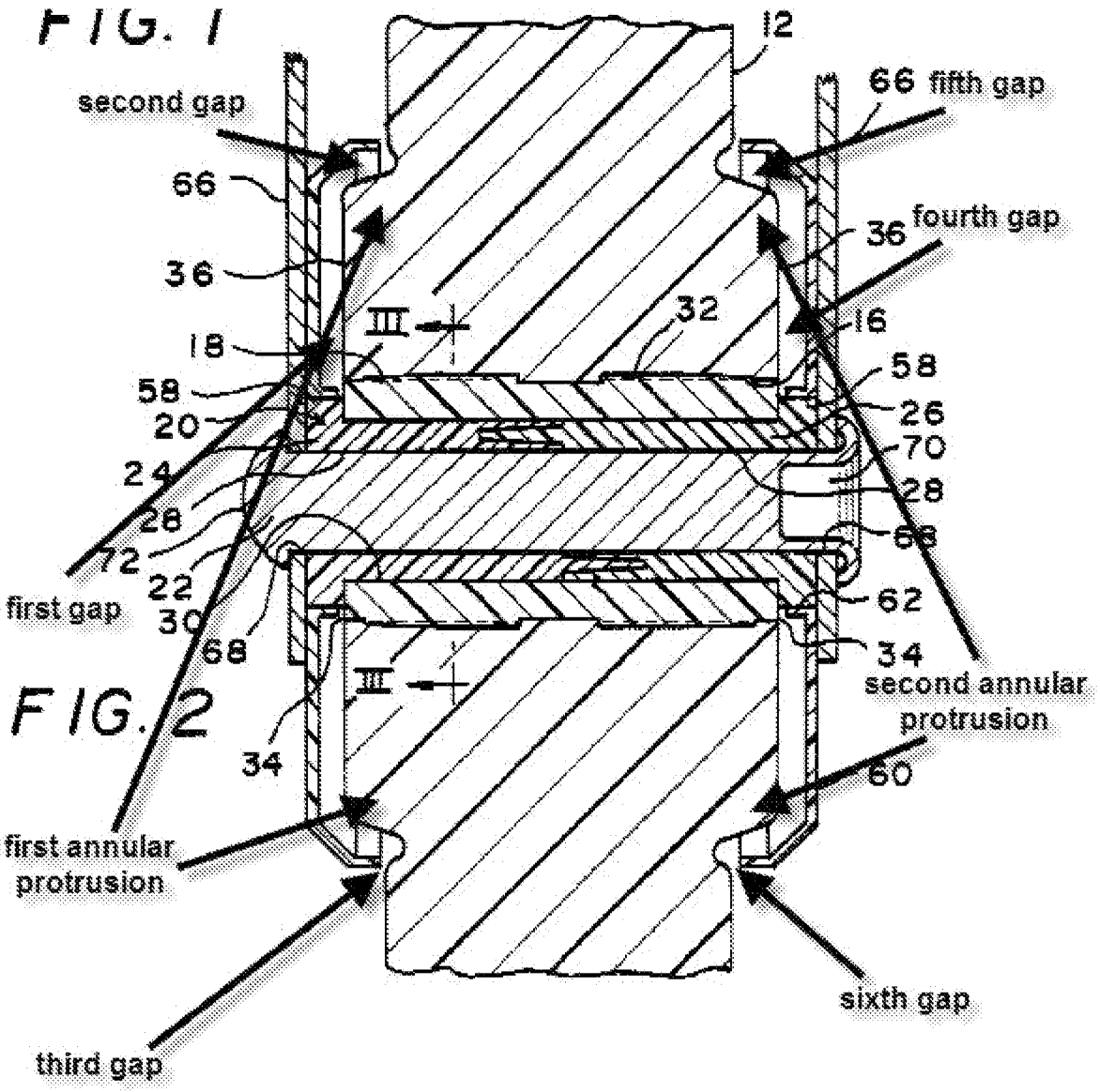
KATOGI does not teach "and first and second washers, said first washer comprising a disk portion disposed between opposed surfaces of said bushing and said pulley arm, and a cylindrical portion axially extending from a radially outer edge of said disk portion of said first washer toward said second washer such that said cylindrical portion of said first washer has a distal end with an axially-facing end surface, said second washer comprising a disk portion disposed between opposed surfaces of said bushing and a head of said bolt, and a cylindrical portion axially extending from a radially outer edge of said disk portion of said second washer toward said first washer such that said cylindrical portion of said second washer has a distal end with an axially-facing end surface; wherein said coupling piece has first and second annular protrusions each formed at one of two open ends of said bushing insertion through hole; wherein said first annular protrusion has an axial end surface axially facing said disk portion of said first washer with a first gap between said disk portion of said first washer and said axial end surface of said first annular protrusion, and a radially outer surface radially facing said cylindrical portion of said first washer with a second gap between

said cylindrical portion of said first washer and said radially outer surface of said first annular protrusion, said first annular protrusion defining a first recess radially outside thereof which has an axially-facing bottom that axially faces said axially-facing end surface at said distal end of said cylindrical portion of said first washer with a third gap between said axially-facing bottom of said first recess and said axially-facing end surface at said distal end of said cylindrical portion of said first washer, said first, second and third gaps communicating with each other so as to define a first labyrinth; and wherein said second annular protrusion has an axial end surface axially facing said disk portion of said second washer with a fourth gap between said disk portion of said second washer and said axial end surface of said first annular protrusion, and a radially outer surface radially facing said cylindrical portion of said second washer with a fifth gap between said cylindrical portion of said second washer and said radially outer surface of said second annular protrusion, said second annular protrusion defining a second recess radially outside thereof which has an axially-facing bottom that axially faces said axially-facing end surface of said distal end of said cylindrical portion of said washer with a sixth gap between said axially-facing bottom of said second recess and said axially-facing end surface at said distal end of said cylindrical portion of said second washer, said fourth, fifth and sixth gaps communicating with each other so as to define a second labyrinth.

KERN teaches first and second washers (60) (Fig. 2), said first washer (60) comprising a disk portion (Fig. 2) (Fig. 4) disposed between opposed surfaces of said bushing (18) and said pulley arm (64), and a cylindrical portion (Fig. 2) (Fig. 4) axially

extending from a radially outer edge of said disk portion of said first washer toward said second washer such that said cylindrical portion of said first washer has a distal end with an axially-facing end surface (Fig. 2) (Fig. 4), said second washer (60) comprising a disk portion (Fig. 2) (Fig. 4) disposed between opposed surfaces of said bushing (18) and a head of said rivet (22), and a cylindrical portion axially extending from a radially outer edge of said disk portion of said second washer toward said first washer such that said cylindrical portion of said second washer has a distal end with an axially-facing end surface (Fig. 2) (Fig. 4); wherein said coupling piece (36) has first and second annular protrusions each formed at one of two open ends of said bushing insertion through hole; wherein said first annular protrusion has an axial end surface axially facing said disk portion of said first washer with a first gap between said disk portion of said first washer and said axial end surface of said first annular protrusion, and a radially outer surface radially facing said cylindrical portion of said first washer with a second gap between said cylindrical portion of said first washer and said radially outer surface of said first annular protrusion, said first annular protrusion defining a first recess radially outside thereof which has an axially-facing bottom that axially faces said axially-facing end surface at said distal end of said cylindrical portion of said first washer with a third gap between said axially-facing bottom of said first recess and said axially-facing end surface at said distal end of said cylindrical portion of said first washer, said first, second and third gaps communicating with each other so as to define a first labyrinth; and wherein said second annular protrusion has an axial end surface axially facing said disk portion of said second washer with a fourth gap between said disk portion of said

second washer and said axial end surface of said first annular protrusion, and a radially outer surface radially facing said cylindrical portion of said second washer with a fifth gap between said cylindrical portion of said second washer and said radially outer surface of said second annular protrusion, said second annular protrusion defining a second recess radially outside thereof which has an axially-facing bottom that axially faces said axially-facing end surface of said distal end of said cylindrical portion of said washer with a sixth gap between said axially-facing bottom of said second recess and said axially-facing end surface at said distal end of said cylindrical portion of said second washer, said fourth, fifth and sixth gaps communicating with each other so as to define a second labyrinth. See figure below.



It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tensioner in KATOGI with the bearing assembly in KERN to create a tensioner with bearings which are protected from foreign objects.

Allowable Subject Matter

Claim 3 is allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HENRY LIU whose telephone number is (571) 270-7018. The examiner can normally be reached on Mon-Thurs 7:30am - 5:00pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN Q. NGUYEN can be reached on (571) 272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Q. Nguyen/
Supervisory Patent Examiner, Art Unit 3654

/HENRY LIU/
Examiner, Art Unit 3654